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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,019	04/26/2001	Dean S. Susnow	219.40042X00	7054

			EXAMINER
20457 7590 10/27/2004			PIZARRO, RICARDO M

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ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>26 April 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8 and 11* is/are rejected.

7)☒ Claim(s) *1-7,9,10 and 12-25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 1-25 are objected to because of the following informalities and it is

requested to applicant:

In claim 1 line 3 delete "that" in line 11 replace "the" with –a-, in line 12 delete the first

occurrence of "the", in line 13 delete "the" and replace the first occurrence of "a' with –

said-.

In claim 2 line 4 delete "the", in line 8 replace "a; with –another-. In claim 3 line 3 delete

"the".

In claim 5 line 2 replace "the" with –a-, in cline 3 replace :"the " with –a-, in line 4

delete "the", in line 5 replace "the" with –a-.

In claim 6 line 3 insert "said" before –receive buffer-, replace "each" with –the- and

replace "a' with –the-.

In claim 8 line 5 insert "at least one" before –remote system-.

In claim 9 replace "the " with –a-, in line 9 replace the first occurrence of "a' with

-said-, in line 16 replace "the" with –a-, and insert "corresponding to said timer" after –

VL-. In line 234 replace "a' with –the-.

In claim 11 line 3 replace "that" with –a-, insert "corresponding to said scheduler- after –

VL-.

In claim 12 line 4 delete "that", in line 5 replace "the" with –a-, in line 12 replace "the"

with –a-, in line 13 delete the first occurrence of "the".

In claim 13 line 2 replace "the" with –a-, in line 3 replace "the" with –a-, in line 6 replace "the" with –a-, in line 12 replace the first occurrence of "the" with –a-, in line 13 delete "the".

In claim 13 line 2 replace "the" with –a-, in line 3 replace "the "with –a-, in line 7 replace "a' with –another-,.

In claim1 4 line 1 replace "said" with –a-, in line 3 delete "the'. In claim 16 line 2 replace "the " with –a-, in line 3replace "the" with –a-, in line 4replace "the" with –a-, in line 5 replace "the" with –a-.

In claim 17 line 3 insert "said" before –receive-, replace "each " with –the- and replace "a' with –the-.

In claim 19 line 14 replace "a' with –said-, in line 15 replace "that " with –a- and insert "corresponding to said timer" after –VL-, in line 17 replace "of the" with – of a   . corresponding-, in line 20 replace "a" with –the-, in line 24 replace "a" with –the-, in line 26 replace "a" with –the-. In claim 20 line 3 delete "that', in line 5 replace "the" with –a-. In claim 21 line 3 delete "the".

In claim 23 replace "the" with –a-, in line 3 replace "the" with –a-, in line 4 replace "the" with –a-, in line 5 replace "the" with –a- .

In claim 24 line 1 replace "said" with –a-, in line 2replace "said" with –a-, in line 3 insert "said" before –receive- replace "each" with –the- and replace "a' with –the-.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Neal in view of Gutierrez.

 US patent No. 6,766,467 (Neal et al) discloses a method and apparatus for pausing a

send queue, comprising: a host system having a host adapter (i.e Host adapters HCA

118-124 in Fig. 1) ;at least one remote system (i.e. remote system 110 in Fig. 1); a

switch fabric which interconnects said host system via said host-fabric adapter to said

remote system along different physical links for data communications (switch fabric 116

in Fig. 1.) ; and one or more communication ports provided in said host-fabric adapter of

said host system (Ports 312m 314, 316 in Host adapter 300 in Fig. 3)   each port including

a set of transmit and receive buffers capable of sending and receiving data packets

concurrently via respective transmitter and receiver at an end of a physical link, via said

switched fabric (Queue pairs 302, 303, 304..... in Fig. 3), and a flow control mechanism

at the end of said physical link (each virtual lane VL 318-334 in Gig. 3 has its own flow

control), as in claim 8;   wherein said flow control mechanism contains a Link Packet

Scheduler per virtual lane (VL) arranged to schedule a link packet transmission for that

virtual lane VL, as in claim 11.

        Neal did not specifically disclose said flow control being utilized to prevent loss

of data due to receive buffer overflow, as in claim 8; wherein said flow control

mechanism contains a Link Packet Scheduler per lane arranged to schedule a link

packet transmission for that lane VL, as in claim 11.

However US patent No. 6,570,850 (Gutierrez et al) discloses a System for

regulating message flow in a network, comprising the use of a flow control mechanism to

prevent loss of data due to receive buffer overflow, (col 2 lines 50-54 as in claim 8;

wherein said flow control mechanism contains a Link Scheduler per virtual lane

arranged to schedule a link packet transmission for that lane (Scheduler 53 in Fig.2,

col11 lines 24-27) as in claim 11.

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time of the invention to provide the use of the flow control mechanism to a

switching node or device as disclosed by Gutierrez the system disclosed by Neal with the

motivation of reducing or preventing congestion in said network by avoiding that either

the switching nod might receive information faster that it can transmit or a destination

device might receive information at a rate faster that it can buffer and process it.

Allowable Subject Matter

3.   Claims 9-10, 12-17 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claim.

4.   Claims 1-7 and 19-28 would be allowable if rewritten to overcome objection to

claims under 37 CFR 1.75.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

- US patent No. 6,747,949 (Futral) discloses a register Baser Remote data flow

  control

- Us Patent no. 6,757,348 (Vila et al) discloses a high speed coordinated multi

  channel elastic buffer.

- US patent No. 6,243,358 (Monim) discloses Process and Device for allocating

  resources in a packet transmission network.

- US patent No. 6,594,701 (Forin) discloses Credit-based methods and systems for

  controlling data flow.

- US patent No. 6,347,337 (Shah et al) discloses a Credit based flow control

  scheme over a virtual interface.

  Any response to this action should be mailed to:

  Commissioner of Patents and Trademarks

  Washington, D.C. 20231

  or faxed to:

  (703) 872-9306

(for formal communications intended for entry, for informal or draft communications,

please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza

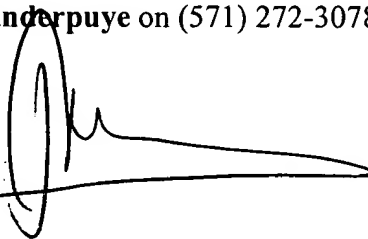Two, Lobby, Room 1B03, Arlington, Va 22202 (Customer Window).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Ricardo Pizarro** whose telephone number is (571) 272-3077. The examiner can normally be reached on Monday-Friday from 9:00 AM to 5:30 PM. The fax number for this Group is (703) 872-9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kenneth Vanderpuye** on (571) 272-3078.

9/29/2004

Ricardo M. Pizarro